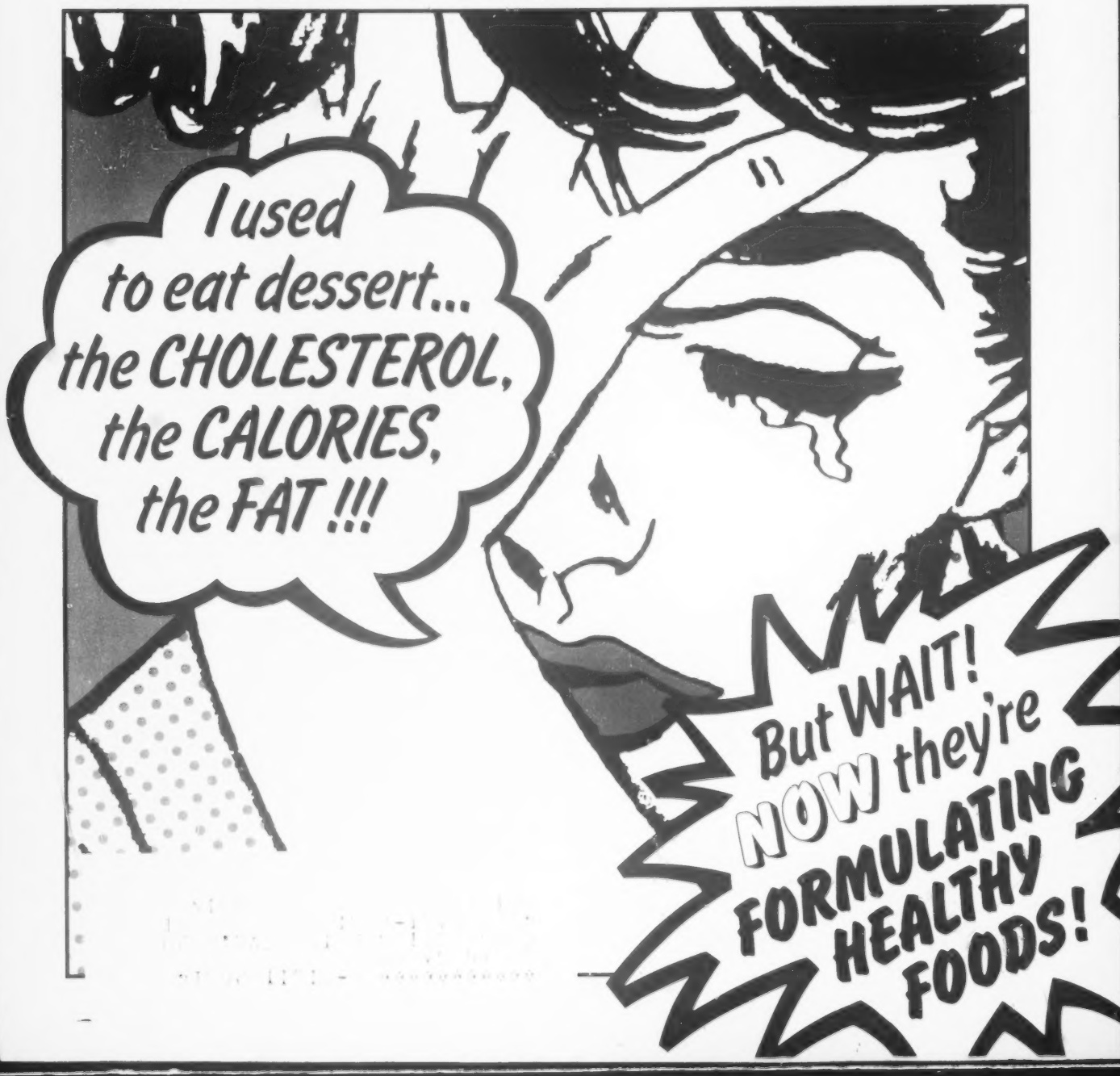
C2150-6

CHILTON'S

FEBRUARY 1990

FOOD ENGINEERING

SINCE 1928, THE SOURCE ON PROCESSING, PACKAGING, AND PRODUCT DEVELOPMENT



FOOD ENGINEERING

ABOUT THE COVER

The interest in healthy eating is being addressed by food manufacturers with an onslaught of "healthy" foods. A major roadblock to the development of these foods is determining what constitutes a healthy diet.
PAGES 49 TO 59

SPECIAL EMPHASIS

PAGES 67 TO 69

CLEAR CARTON: **PAGE 34**

ENGINEERED FOODS

20 Improved Functionality of Ingredients
The formula for being a successful food manufacturer is changing from being a low-cost producer to offering quality products.

22 Marketplace—Pasta Sales Climb
Growth of traditional dry pasta, fresh pasta and pasta salads is expected to continue.

24 Specialty Dextrose Increases Absorption
Cantab is a specialty dextrose whose unique structure allows it to absorb substantial quantities of various liquids.

24 Natural Flavors for Low-fat Foods
A line of flavors was developed using a proprietary process involving reaction chemistry.

FOOD PACKAGING

34 Clear Egg Cartons Crack New Market
The *ViewPak* carton is designed to showcase premium, extra fresh, brown and low cholesterol eggs.

36 Du Pont Announces Award Winners
Six food packaging developments for plastic packaging innovations were announced at the National Food Processors Association annual conference in San Francisco.

38 New Recycling Project Unveiled
This project focuses on industrial scrap produced during multilayer sheet coextrusion and rigid container thermoforming.

40 Trendwatch—Looking Back

FEATURES

49 Formulating Healthy Foods
Reducing fats, both saturated and overall, and increasing fiber content of foods are the major areas of concentration in formulating healthier foods.

61 Food Label Reform: What's Needed?
This article is based on a roundtable discussion conducted by *Food Engineering* at the NFPA Fall Executives Conference.

67 Warehousing—Putting It Under One Roof
Changes in the food industry have greatly affected warehouse designs and distribution patterns. Without a doubt, cost reduction and distribution efficiency are the key components for a good business strategy.

PROCESSING & CONTROL

72 DFISA Conference Profiles Dairy Plants
Food/dairy-plant design is impacted by three major issues: regulatory, labor/inventory and business factors.

74 U.S. Designs Food Plants in Poland
A Chicago firm recently completed two fruit-processing/freezing plants for Polimex-Cekop in Poland.

76 Infrared Thermometers Ease Maintenance
Infrared thermometers can be clipped to a belt or carried in a tool kit for quick, easy monitoring of equipment.

76 Microwave 'Retorts' Start-up in Europe
An Omac *Micronix TP* continuous, pressurized microwave pasteurization/sterilization system will soon "retort" shelf-stable prepared meals packaged in a barrier-layered dual-ovenable PET tray.

DEPARTMENTS

9 Editorial
12 Calendar
15 Industry Report
94 New In Print
98 People

NEW PRODUCTS

82 Sanitation & Maintenance
88 Handling & Distribution
90 Instruments & Quality Control

JESSE H. NEAL AWARD-WINNING PUBLICATION

Permission to photocopy for internal use or the internal use of specific clients is granted by Chilton Company for libraries and other users registered with the Copyright Clearance Center (CCC), provided that the base fee of $1.00 per copy of the article, plus 25¢ per page is paid directly to the CCC, 21 Congress St., Salem, MA 01970. Special requests should be addressed to The Editor. (0193-323X/85 $1.00 + 25¢)

FOOD ENGINEERING® (ISSN 0193-323X) February 1990, Vol. 62, No. 2. Published monthly by Chilton Company, Chilton Way, Radnor, PA 19089 (Telephone 215/964-4000). Chilton Co., one of the ABC Publishing Companies, a part of Capital Cities/ABC Inc., New York, NY. Second Class Postage Paid at Wayne, PA 19087 and additional mailing offices. Title registered in U.S. Patent Office

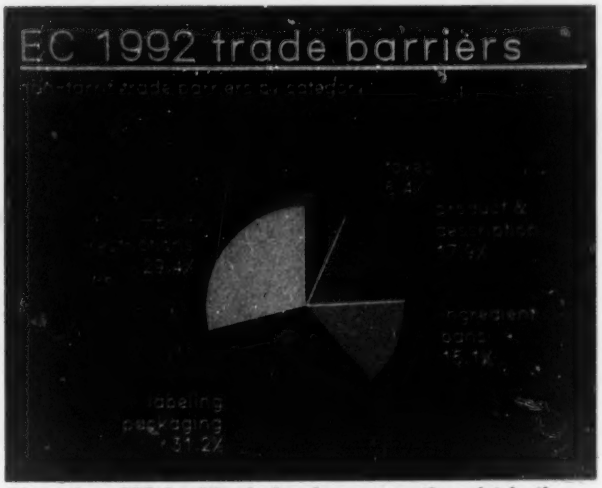
™Chilton Company, 1989. All rights reserved.

POSTMASTER: Send form 3579 to Food Engineering, Post Office Box Number 2035, Radnor, PA 19089.

Europe steps closer to 1992

Food and beverage firms can expect to face more barriers than any other industry when the European Community (EC) finally is open for business at the end of 1992.

However U.S. firms might find it worthwhile to wade through the difficulties to be able to reach a unified EC which will boast of 320 million consumers with a combined purchasing power of $4 trillion, according to the U.S. Department of Agriculture (USDA)/Economic Research Service.



More than 200 food trade barriers currently exist in the EC. (Source: USDA/Economic Research Service.)

Correction

In the 12th Annual New Food Plant Construction *story appearing in the November 1989 issue of* Food Engineering, *Webber/Smith Associates was incorrectly named as the architectural firm of the ASK Foods plant in Palmyra, PA. The correct firm is Facilities Design, Inc. of Lancaster, PA.*

Thicker quicker!

New FiSan® Liquithix mixes easily and instantly, for long-clinging USDA-approved gel cleaning.

Mix new FiSan Liquithix gel additive with Oakite's alkaline cleaners and water. Watch the result: a cleaning system that makes the toughest foam cleaning challenge a snap because of a dwell time superior to existing technologies.

And that's not all. Liquithix mixes instantly, with no need to use an expensive gel machine or ten-gallon minimum make-up solutions. Just mix manually in any size container, varying thickness from spray-it-on to paint-it-on.

USDA Code A1 approved Liquithix can also be used through a variety of mechanized units — some of which you may already have in your plant.

Call Tracey Shipman right away at (800) 526-4473, ext. 259, for a no-obligation sample. Ask about Oakite's Food Sanitation Management Program too. It boosts efficiency and economy by combining products and management systems.

Oakite

Food Sanitation Management Program

50 Valley Road, Berkeley Heights, NJ 07922
Phone: (201) 464-6900 (800) 526-4473, X259
Fax: (201) 464-6031

Circle 13 or see FEM, p. 301